

**REMARKS**

In the Office Action, claims 22-39 were allowed; claims 1-4, 6-10, 15, 16, 18-21, 40-47 and 50-53 were rejected; and claims 5, 11-14, 17, 48, 49 were objected to. By the present response, claims 1, 15, 40 and 43 have been amended. No new matter has been added. Upon entry of the amendments, claims 1-21 and 40-53 will remain pending in the present patent application. Reconsideration and allowance of all pending claims are requested in view of the following remarks.

**Rejections Under 35 U.S.C. § 102**

Claims 1-4, 6-10, 15, 16, 18-21, 40-47 and 50-53

Claims 1-4, 6-10, 15, 16, 18-21, 40-47 and 50-53 were rejected under 35 U.S.C. § 102 (b) as being anticipated by Lu (U.S. Patent 5,548,218; hereinafter "Lu"). Applicants have amended independent claims 1, 15, 40 and 43 to more clearly recite the claimed subject matter. Support for the amendment can be found in the Applicants' application, under the title "Detailed Description of the invention" on page 7, lines 11-18 and on page 8, lines 27-30. Applicants respectfully traverse the rejection of independent claims 1, 15, 40 and 43, as amended, under 35 U.S.C. § 102 as being anticipated by Lu.

A *prima facie* case of anticipation under 35 U.S.C. § 102 requires a showing that each limitation of a claim is found in a single reference, practice or device. *In re Donohue*, 226 U.S.P.Q. 619, 621 (Fed. Cir. 1985).

Applicants respectfully submit that Lu does not disclose, teach or suggest at least the claim recitations of each coil coextensively covering a predetermined area, as recited in amended independent claims 1, 15, 40 and 43.

Lu discloses an RF coil construction for an MRI apparatus which has three butterfly coils extending in a longitudinal direction and overlapping with three single loop coils. Each of the three butterfly coils has flexible wings which can be wrapped over the

body of a patient. The signals from two of the butterfly coils and two of the single loop coils are simultaneously processed in a phased array manner. See, Lu, Abstract. The fixed part of the butterfly coils is located beneath the single loop coil, while the flexible wings of the butterfly coil extend over and cover the patient. See, Lu column 3, lines 58-64.

Fig. 3 of Lu and its corresponding description in column 4, lines 1-38, describes that three individual butterfly coils are “placed adjacent to one another in the longitudinal axis”. Thus Lu clearly teaches away from the recitation of “each coil covering the predetermined area” of the independent claims 1, 15, 40 and 43 of the Applicants’ application.

Lu repeatedly describes and emphasizes that the predetermined area covered by the 3 butterfly coils is different. For example, in column 4, lines 34-38, with reference again to Fig. 3, Lu states that the coil #1 is close to the head of patient, while coil #2 and coil # 3 extend towards the patient’s feet. Similarly, Lu discloses that the predetermined area covered by each of the three single loop coils as shown in Fig. 4 is different. See Lu column 4, lines 40-58.

Thus, if the “predetermined area” in Lu as an area from the chest to the abdomen, none of the coils is coextensive with that area. Moreover; if the “predetermined area” in Lu is either the chest or abdomen, for example, the coils in Lu do not subdivide this area into three regions, as claimed. Finally, no provision is made in Lu for localizing signals from subdivided regions within these regions covered by the coils (e.g., from either side of the chest).

Thus, Applicants respectfully submit that independent claims 1, 15, 40 and 43 as amended are not anticipated by Lu under 35 U.S.C. § 102 and therefore, are allowable. Inasmuch as the rejected dependent claims depend directly or indirectly from one of these independent claims, they are similarly allowable.

**Claim Objections**

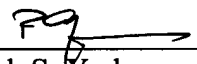
Claims 5, 11-14, 17, 48, and 49 were objected to as being dependent from a rejected base claim. Applicants respectfully submit that because each base claim, as amended, is allowable as discussed above, claims 5, 11-14, 17, 48, and 49 are similarly allowable for the same reasons, as well as for the subject matter they separately recite.

**Conclusion**

In view of the remarks and amendments set forth above, Applicants respectfully request allowance of the pending claims. If the Examiner believes that a telephonic interview will help speed this application toward issuance, the Examiner is invited to contact the undersigned at the telephone number listed below.

Respectfully submitted,

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